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THE IMPACT OF DOCTRINE ON AIR FORCE ROLES AND MISSIONS

by

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Our nation?s armed forces are undergoing a transformation initiated by the end of the cold war. This transformation has both political, and military dimensions. This paper takes a historical look at the role of doctrine in the past in Chapter 1 and concludes that doctrine will continue to play an important role. Chapter 2 studies the history of significant roles and missions reviews with an eye towards the durability of decisions made in these reviews and an understanding of institutional barriers to change. Chapter 3 covers our national policy in the post cold war period and provides a stepping stone to Chapter 4. It is in Chapter 4 that the technological advances brought about by the cold war, doctrine, and national policy are combined with a strategy and then applied to the new world situation. This section concludes that there are tremendous advantages available to the United States government in attacking the leadership of states inimical to US policy. The research conducted represents a review of both historical and contemporary works, with a focus on the idea that the Air Force should change and now is a good time for change.

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Preface

This research project traces air power theory as it forms the foundation for various reviews and efforts to reorganize the armed forces following the end of the cold war. Relationships between the Joint Staff, the services, regional Commanders in Chief, and national policy makers are changing simultaneously, while the international structure realigns itself. Policy makers have doctrine as a yard stick to measure the value of various alternatives, and this set of beliefs implicitly shapes how the nation organizes, and then fights in future conflicts. The process of change in this area is slow, and the stakes involve national treasure. Fortunately, the United States has a tradition of innovation in this area, and while the change may not occur fast enough to satisfy some observers, the change is underway.

None of this research would have been possible without the world class resources available at the Air War College, the expert advice of my advisor, Dr. Jim Mowbray, and the time set aside to enable the work. The Air Force is facing an era of uncertainty when its doctrine will assume greater importance in defining forces and command and control structures. The intent of this project is to add to that discussion.

Abstract

Our nation's armed forces are undergoing a transformation initiated by the end of the cold war. This transformation has both political, and military dimensions. This paper takes a historical look at the role of doctrine in the past in Chapter 1 and concludes that doctrine will continue to play an important role. Chapter 2 studies the history of significant roles and missions reviews with an eye towards the durability of decisions made in these reviews and an understanding of institutional barriers to change. Chapter 3 covers our national policy in the post cold war period and provides a stepping stone to Chapter 4. It is in Chapter 4 that the technological advances brought about by the cold war, doctrine, and national policy are combined with a strategy and then applied to the new world situation. This section concludes that there are tremendous advantages available to the United States government in attacking the leadership of states inimical to US policy. The research conducted represents a review of both historical and contemporary works, with a focus on the idea that the Air Force should change and now is a good time for change.

Chapter 1

Foundations Of Doctrine

> *The United States depends on the Air Force. The Air Force has never decided a war.*
>
> —Saddam Hussein

It has been a scant 82 years since air power began its preliminary journey into the field of armed conflict. Over these years, there have been retrospectives often critical of problems and highlighting mitigating factors that deprecate air power's impact. Much of the debate about Airpower centers on its contribution to victory and its independence from ground or naval forces. To support various points of view, policy makers propose air power fails to reach the Holy Grail of decisiveness as a point to justify a particular strategy or policy. Even Saddam Hussein pointed out to the US, before the Gulf War, that air power had never been decisive in war. This chapter shows early US and British Air Power doctrine and strategy proponents basically had a correct vision, and this vision is just as important today as it was in 1918. The lack of a lexicon often hampers meaningful discussion. For this reason a series of definitions lay the groundwork to later examine the interactions of strategy, doctrine, and the Air Force from 1918 to 1945.

Definitions

Strategy is an elusive concept with many definitions. B.H. Liddell Hart put it most succinctly as "the art of distributing and applying military means to fulfill the ends of a policy."[1] This short and sweet definition contains the elements of objective, a plan, and resources that most other credible definitions contain explicitly or implicitly. In typical US government fashion, the official Department of Defense definition contains 45 words to Hart's 15 and eventually gets to the same end.[2] Strategy is then the road map to reach some goal defined by policy. Sample policy statements would be: promote free trade and democratic institutions; restore a border and government; destroy the enemy armed forces and establish a military garrison. Clearly each of these policy statements speak to a different end and each could be accomplished with a different strategy. Determining the strategy is an art and many equally successful strategies can only be differentiated by the time they may take or the casualties they produce.

Doctrine differentiates strategies prior to taking actual body counts from battle. An equally concise definition of doctrine is "Military doctrine is what we believe about the best way to conduct military affairs."[3] In a more pithy manner, "It is belief in the best way to fight." Strategy and doctrine interact, and are also influenced by common factors. They also serve policy which may be indistinct or shifting. Strategists may demand to know the policy as a requirement to generate a plan; doctrine cannot know the policy a priori, as it is an empirical, theoretical, constantly evolving body of knowledge. In the case of air power doctrine, technology has the greatest impact as a catalyst for evolutionary change, though the advent of air power should be considered a discontinuous change for warfare as a whole. Beginning with World War I (WWI), early

airmen recognized the importance of their doctrine, and developed technology and organizations to fight the best way.

World War I

US policy in WWI can be summarized on two levels ideal and practical. On the ideal level, President Wilson's aim was "…to deliver the free people of the world from the menace and actual power of a vast military establishment."[4] The practical aspects of this policy are contained in Wilson's fourteen points, presented to a joint session of congress 8 January 1918. These 14 points later formed the foundation of the Armistice. In summary they revolve on freedom of navigation, free trade, realignment and restoration of borders, and disarmament.[5] There are a number of ways to achieve these goals, President Wilson chose the policy of helping our allies with material, conducting naval operations, and sending American Expeditionary Forces to fight primarily in Europe. The expeditionary forces had an Airpower component.

World War I formed the birthplace of military aviation and doctrine. In this crucible, military aviators saw every mission, both tactical and strategic, performed by air forces on each side of the conflict. These missions included the traditional early aviation role of observation and reconnaissance all the way through what would be later known as strategic bombing of cities.[6] Within the US forces, Gen. John J. Pershing asserted the purpose of air power was to assist ground troops by driving off hostile aircraft, spot for artillery, and provide information for the infantry. The primary objective was to control the air to allow for attack on the enemy's artillery and ground troops.[7] Going into WWI the American air arm did not have any recognizable doctrine, although some air officers

had strong opinions about what they wanted to do.[8] This lack of a doctrine wasn't peculiar to just the Americans as air power theorists were dealing with new ideas not generally known or accepted by military thinkers. Militaries of all nations were interested in the applications of balloons and aircraft to combat, primarily for observation and reconnaissance, but the idea that air power might be different, and have a great impact on warfare was still forming. An early visionary, Major J. D. Fullerton, proposed that "the chief work will be done in the air, and the arrival of the aerial fleet over the enemy's capital will probably conclude the campaign" in 1893, but little was actually done to make a future where such predictions would come through.[9] What was done, however, was the constant development and adjustment of organizations and technologies of air power throughout the war.

There are number of successful applications of airpower throughout WWI for all of the armies involved. The ground campaign, whose main objective was to achieve victory in the final great battle to achieve victory, as in the case of the German Michael Offensive of 1918 soon relied on airpower. This reliance on airpower became so great that an attack would be postponed if the planes could not fly.[10] When commanders massed air power, it could have a great impact on the battlefield. This was seen in the St.—Mihel attack, and later the Meuse Argonne offensive. In this battle, air power prevented a planned German assault from occurring and effected a ground decision on the field of battle.[11] Such experience wasn't just that of the Americans. The French had similar success and used 120 of their bombers to prevent a German assault from the forest of Villers—Cotterets.[12] During this period not every airpower application on the direct battlefield was successful. The warfighters were still trying to determine the best application, by trial and error, often

measuring success or failure thousands of human lives. An example of missed opportunity occurred in the battle of Verdun. In this particular example, the German objective of the ground battle was to take Verdun, and in the process bleed the French army "white". The Germans developed a tactic called *Luftsperre* in which they used large numbers of aircraft to create a screen to deny the battlefield to enemy airpower. In the analysis of defeat, the German High Command may have well lost the battle of Verdun, by tying up bombers in *Luftsperre*, and not allowing them to attack the French supply line, a single vulnerable thread.[13] These applications of interdiction, and close air support were accompanied by similar developments in the area of what is now known as strategic bombing.

It is the strategic bombing experience which later would have the largest effect on the development of airpower doctrine and theory. Partially foretold by H. G. Wells' 1908 *War in the Air*, the Germans bombed London, first by the Zeppelins, and then by the Gotha bombers. The main immediate effect was for the armed forces to improve defenses and retaliate. The longer term effect occurred on 17 August 1918, when the Smuts report established the Royal Air Force as a direct result of the bombing of London. It was in this report that the authors noted "…the day may not be far off when aerial operations with their devastation of enemy land and destruction of industrial and populous centers on a vast scale may become the principal operations of war ..."[14] At this point, there was now an institutional recognition of the power of strategic bombing. In this way, air power came into being in World War I, the war for civilization, as noted on the soldiers' campaign medals.

WWI flyers saw air power in both a tactical and strategic sense. Was airpower decisive in this application? Did airpower change the outcome of the war? In retrospect, airpower went from peripheral in 1914 to influential in 1918, but it never determined to outcome in any theater.[15] Airpower had become indispensable and its impact was still on a fast rise at the rate established during the war. The Americans, British and French had each started a furious program of aircraft production and innovation. The US produced aircraft at a rate of 500 planes a week by the Armistice. Had the war continued, the offensives planned for 1919 certainly would have demonstrated airpower. Following the Armistice, the war experiences of Billy Mitchell, Giulio Douhet, and Hugh Trenchard, formed the seeds for development of airpower theory outside of the pressure cooker of daily combat and the preparation for the next big offensive. Pilots were struck by the ease at which they could travel over ground that entire armies could not take, and began to theorize about what this new weapon really meant. Douhet published *The Command of The Air* and other works postulating that, "To be defeated in the air ... is finally to be defeated and to be at the mercy of the enemy, with no chance at all of defending oneself, compelled to accept whatever terms he sees fit to dictate."[16] Billy Mitchell in *Winged Defense*, proposed a similar idea where he wrote "Heretofore, to reach the heart of a country and gain victory in war, the land armies always had to be defeated in the field and a long process of successive military advances made against it. Broken railroad lines, blown up bridges, and destroyed roads necessitated months of hardships, the loss of thousands of lives, and untold wealth to accomplish. Now an attack from an air force using explosive bombs and gas may cause the complete evacuation of and cessation of

industry in these places."[17] The idea now being, the air forces could take the war directly to those aspects of industrial power that enabled the enemy to fight.

Interwar Period

Air power evolution diverged between the United Kingdom and the US War Department, but a number of similarities remained. Hugh Trenchard stated in 1928, "The aim of the Air Force in concert with the Navy and Army is to break down the enemy's resistance. The Air Force will contribute to this aim by attacks on objectives calculated to achieve this end in addition to direct cooperation with the Navy and Army…"[18] Trenchard held that to break the enemy's resistance the air force would attack communication centers, industrial centers, and enemy forces as the situation would dictate. Unlike Douhet's views, there would not be any indiscriminate bombing of civilian populations.[19] The US War Department had a similar approach as stated in its 1926 *Fundamental Principles for the Employment of the Air Services.* This document listed two broad categories of targets defined as those within the theater of operations and the enemy zone of the interior. Within the theater of operations were communication centers, ammunition dumps and depots, concentration centers, transportation's lines and centers, airdromes, artillery, and any enemy concentrations. The enemy zone of the interior contained military industrial centers, mobilization and training centers, military shipping and training centers, bridges, dams, locks, power plants, and war material depots.[20] Both the UK and US had adopted the position that air power in concert with the land and sea forces would bring about victory. There were number of assumptions underlying both doctrines. The first was that the entire enemy nation's war making

potential was a valid objective of attack. Modern warfare required the total industrial effort of a nation, and the new air weapons allowed attack of these formerly inaccessible targets. While not a specific target, the status of civilians began to approach that of enemy forces. It is implied that destruction of industrial centers will result in civilian deaths. From the foundation set in WWI, airmen would begin the dance with technology, policy, and strategy leading up to the next major effort.

During the Interwar period, the US, UK, German, and Japanese military leaders began to set up the delicate relationship between policy, strategy, and doctrine. The effect of WWI on western civilization cannot be overstated. The carnage in Europe changed the most fundamental aspects of western society all the way down to language used in casual conversation, literature, and a drift towards cynical thought. Following the war and massive demobilization, the world economy rang with the lingering aftershocks of lost national treasure, productivity, and unemployment. Politicians dealt with war related domestic problems and diplomats attempted to establish international agreements which would ensure such a disaster could not happen again. It is in this austere environment that airmen honed their doctrine. Each group was influenced by their vision, international constraints, fiscal realities, geographical facts, and technology to varying degrees. The issue of strategic bombing occupies a central point in the discussion of US doctrinal thought. Beginning with the origins of the United States, American strategy was beginning its movement towards total war. This concept of total war gave less weight to restraint towards the enemy and disregarded restrictions against the non-combatants.[21] This drift towards total war, visible in the American experience of the Indian Wars, and the Civil war, may well have its roots in a earlier military revolution which occurred in

Europe in the period between 1560-1660. Mass Armies, strict discipline, control of the state over finances and technology became established at that time.[22] All these factors are necessary to conduct strategic bombing and it is only the will of leaders which proscribe its use. Sensibilities of what is permissible in warfare change over time and as a reaction to circumstances. For example, Grotius taught in the 1600's that it was lawful to kill prisoners of war, assassination was legitimate within certain parameters, and the slaughter of women and children was permitted.[23] For three hundred years, western civilization would wrestle with efforts to create a law of armed conflict, and in World War II the German Air Force, Japanese Air Force, Royal Air Force, and US Air Corps, by omission of self imposed restrictions, would each reintroduce the world to the horror of general total war between industrialized nations.

During this interwar period, the US rewrote its *Fundamental Principals for the Employment of the Air Service* and it became *Employment of the Air Forces of the Army*.[24] This new doctrinal document showed a shift towards airpower as an arm of the Army; however, the provision for attacks into the enemy's zone of the interior was still present. One paragraph reads "In a war between great powers, a phase of air operations, the outcome of which will exert a potent influence upon the subsequent operations, will probably precede the contact of surface forces." Another paragraph clearly sets out the question still fermenting in many military minds: "The power of air forces has not as yet been fully tested. The effect which they are capable of producing and the extent to which they will influence warfare is still undetermined. but it appears certain that skillful use of air forces will greatly affect operations in future war."[25]

World War II

The Air Corps Tactical School

At the Air Corps Tactical School (ACTS) in Montgomery Alabama, a small group of officers would set their minds to just what would be a skillful use of airpower. Through a steady application of thought and respect for technology this group of airmen linked doctrine and strategy to national policy. They first had to determine national policy. This continues to be a vital task for senior leaders today. National policy may not be clear or it may shift. For this reason, senior military leader must recognize their strategy and doctrine must be flexible to account for these expected changes. The Air Corps Tactical School defined national policy as "The strategy employed by a people to insure (1) security, (2) prosperity, and (3) ethnic unity."[26] To achieve this policy, destruction of the enemies' military forces were only a means to an end. The ACTS went on to teach that destruction of the industrial web which supported the enemy forces would cause the enemy to collapse without having to fight an exhausting war at the nation's frontiers.[27] To achieve this goal the US needed long range precision bombers, and it was the ACTS graduates that would bring them to the fight in Europe. There were still many technical question to be answered, but the advocates of strategic bombing faced the technical challenges and would pursue a weapon system that could fulfill the strategic aim.[28] Leading up to US involvement in World War II (WWII) there was no firm national policy to form a basis for national defense.[29] Military planners developed force structures and strategies with an emphasis on doctrine. When requested by President Roosevelt, the War Department responded with a mobilization plan called AWPD 1 that placed the

future of the country on bottom up analysis of German targets to be destroyed on the way to achieve victory. The authors of the plan, which would be revised, had the strategy of an all out strategic air offensive that would presage a later combined air-land sea invasion with subsequent air and land offensives. The airmen believed the offensive might bring capitulation by itself.[30] In keeping with earlier doctrine, the plan had provisions for the full spectrum of airpower, that is support of the land forces, but its focus was on the strategic bombing campaign. From the US perspective World War II has two major phases, the war in Europe and the war in the Pacific. Within the first phase, there are three watershed events, the Battle of Britain, the North African campaign, and the US Strategic Bombing Campaign.

Battle Of Britain

While US planners were developing their strategy, the Royal Air Force was engaged in the first major campaign in the history of warfare that was fought exclusively by air forces.[31] This seminal battle clearly demonstrates the value of air superiority, however gained, and structural problems within the doctrine of the German Air Force. British and French forces, routed from the continent had only air power to continue the war, and defend themselves from invasion. The German Air Force lost the battle by missing opportunities and beginning with flawed assumptions. The Luftwaffe lacked bombers with adequate range, bomb load, and defensive firepower. Walther Wever, the Luftwaffe Chief of Staff , had argued for a broad based strategy that included both strategic bombing and tactical support. When Wever died in 1936, and given his successors' lack of ability and technical problems with development of a suitable bomber, the Luftwaffe could not recover.[32] Another major contributing factor to the German defeat was the

shifting of attacks away from the Royal Air Force, just as the battle was near to being won.[33] The Royal Air Force won the battle by the development of an integrated air defense, maintenance of a force structure to allow defense, and valuation of the doctrine of air superiority.[34] These lessons would remain with the Royal Air Force and were later used by US airmen as well.

North Africa

The North African campaign represented the first time the US would try its theories in combat. North Africa contained a paucity of targets that fit the definition suitable for the doctrine of strategic bombing. The air force units were faced with a theater which required an emphasis on tactical support of the army, although attacks on shipping would have great effect. The adaptability the Americans showed in development of close air support techniques and the realization of their value represent a case of wartime doctrinal development.[35] The prewar focus had been on strategic bombing, and this first theater had different emphasis. Major lessons learned in this theater were: experience for the successful conduct of allied operations; experience for the successful conduct of tactical air operations; proper organization for effective command and control. In addition to the destruction and capture of the German Army on Africa, another major benefit was the rewrite and publication of FM 100-20 in 1943.[36] *Command and Employment of Air Power* now gave airmen the institutional guidance necessary for the successful invasion and operations against Germany. These lessons did not come cheaply. There were 1433 Army Air Corps casualties (277 KIA, 406 wounded, and 750 missing, interned, or captured) and 666 aircraft of all types lost to combat.[37] In FM100-20, the aim of the strategic air force is described as "the defeat of the enemy nation". In a subsequent

paragraph, accompanying fighter aviation "is used to increase" the heavy bombers' security. The focus of the tactical air force is to achieve air superiority as a first priority, then prevent the movement of hostile troops and supplies within the theater.[38] The organization for tactical success translated well into that for the strategic offensive against Germany as well.

In an action that affected both the North African campaign and the attacks against Germany, President Roosevelt and Prime Minister Churchill met with their staffs at Casablanca. It was from this meeting that the "Casablanca Directive" came and gave the objective of the strategic war against Germany. The air assault would be designed "To bring about the progressive destruction and dislocation of the German military, industrial and economic system and the undermining of the morale of the German people to a point where their capacity for armed resistance is fatally weakened."[39] With this guidance the allies could begin planning and execution of the combined bomber offensive, the application of airpower theory.

In 1942, the AWPD-1 received another revision as a result of the strategic bombing campaign becoming a combined UK-US effort, and the Japanese attack on Pearl Harbor, but in essence the plan remained the same.[40] When the US strategic bombing campaign began in January 1943, the British were night bombing against industrial type targets, and the US started its program of daylight precision bombing. In another act of wartime improvisation, the US learned it could not achieve its goals without the long-range fighter escorts to provide necessary survivability for the bomber force. The plans proceeded, the continent invaded on 6 June 1944 and less than a year later Germany would be divided and occupied for 50 years to come.

Normandy

During the invasion of Normandy, there was no Luftwaffe opposition and German forces were forced to wait for darkness to move with any effect.[41] It is clear the invasion could not have been successful without airpower. The strategic bombing continued and the German armed forces was essentially destroyed, with much of Germany. What was the empirical evidence for the efficacy of the strategic bombing campaign?

The Germans viewed attacks on oil as catastrophic.[42] When the D-Day invasion occurred the German forces had only 80 aircraft operational to attempt to repulse the invasion and assist ground forces.[43] The Germans worked ingenious plans to maintain production on the face of the strategic assault, but in some cases the techniques to solve one problem made them vulnerable to another. Dispersal saved some industries but placed more reliance on the transportation system, which was under stress from attacks on oil and infrastructure itself. Many factories were left with nearly finished parts that would not be complete because of losses in other areas.[44] In 1945 the authors of the Strategic Bombing Survey (USSBS) concluded "Allied air power was decisive in the war in Western Europe. Hindsight inevitably suggests that it might have been employed differently or better in some respects. Nevertheless, it was decisive."[45] But, because of inertia, the US military staff very nearly failed to accept the value of strategic bombing when its full attention turned to the catalyst for US entry into the war.

Japan

The US had similar, but different problems the war against Japan. The theater was different because of the long lines of communication, and planners had less information available on the location of enemy strategic targets. The strategy was basically the same

as with Germany, with the Pacific theater twist. The Marianas would be captured to provide a base for strategic air attacks against the military, economic, industrial, and social structure of Japan that gave it the ability to wage war.[46] The strategic bombing campaign had the destruction of Japan to a point where it could then be occupied, or invaded as its objective, and commenced. Following the campaign, as in the case of Europe, a committee performed a strategic bombing survey of action in the Pacific. Noting the differences between theaters they concluded "…no nation can long survive the free exploitation of air weapons over its homeland. For the future it is important to fully grasp the fact that enemy planes enjoying control of the sky over one's head can be as disastrous to one's country as its occupation by physical invasion."[47]

Airpower had made the shift from being on the periphery of war in 1914, to being influential in 1918, to a dominant position in 1944, and then decisive in 1945. General Hap Arnold in his report to the Secretary of War, 12 November 1945 placed airpower's contribution in context when he wrote:

> Fully recognizing the indispensable contribution of other arms, I feel that air power's part may fairly be called decisive. The collapse of Japan has vindicated the whole strategic concept of the offensive phase of the Pacific war. No invasion was necessary.[48]

Policy Strategy And Doctrine

Policy, strategy, and doctrine clearly formed a closely knit triumvirate in the planning, execution, and assessment cycles in the period between 1914 to 1944. It was airpower doctrine that fueled the engine, leading up to fulfillment of H. G. Wells' prediction "So that a universal social collapse followed, as it were a logical consequence..." in Japan at the end of the war.[49] Doctrine was the fuel for the decisions

on what type of aircraft to buy, how they would be used, and to some extent, what strategy would fulfill a policy. The doctrine is fundamentally correct, but it must evolve. As seen in World War II, airpower leaders had to improvise and shift when the targets changed, policy changed, and technology changed. The idea of attacking an enemy throughout the battle space, and striking at the elements of his survival remained constant, and the world saw a shift. The shift was one where airpower went from being peripheral, to influential, to dominant. There are nay sayers, speaking of World War II, Maurice Matloff has the view point, "Despite the claims of prewar British and American air enthusiasts, the ability of air power to defeat enemies was not proved."[50] Such a view fails to recognized the tremendous interactions between the policy the US pursued, the strategy military leaders took, and the tremendous effect of airpower doctrine. A question to such a nay sayer would be, "How would the British and American armies be decisive without airpower?" It is in this manner, military thinkers can see the importance of airpower, and understand how early airmen had the right idea and created a force to achieve the nation's policies. The close of WWII began a debate on the Roles and missions of the services. This debate, fueled by advances in technology, changes in the geopolitical environment, and social changes continues today.

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[42]*The United States Strategic Bombing Survey Summary Report (European War)*, (1945;reprint, Maxwell AFB AL.: Air University Press, 1987),21

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[45]*The United States Strategic Bombing Survey Summary Report (European War), 37.*

[46]Maj Gen Haywood S. Hansell, *Strategic Air War Against Japan,* (Maxwell AFB AL.: Air Power Research Institute, Air War College, 1980), 35

[47]*The United States Strategic Bombing Survey Summary Report (Pacific War)*, (1946;reprint, Maxwell AFB AL.: Air University Press, 1987),110.

[48]Quoted in Maj Gen Haywood S. Hansell, *Strategic Air War Against Japan,* (Maxwell AFB AL.: Air Power Research Institute, Air War College, 1980), ii.

[49]H.G. Wells, *The War in the Air,* (London England: Collins' Clear-Type Press, 1908),257.

[50]Peter Paret, ed., *Makers of Modern Strategy*, 701.

Chapter 2

Context Of Roles, Missions, And Functions

> *In 1948, the Secretary of Defense James Forrestal convened a meeting of the military service chiefs in Key West to allocate responsibilities among the four services. It failed. As President, I will order the Pentagon to convene a similar meeting to hammer out a new understanding about consolidating and coordinating military missions in the 1990's and beyond.*
>
> —President Clinton, August 1992

This chapter briefly covers the history of conflicts between the services in the areas of roles and missions, and various reviews and commissions. Although the time period literally spans the entire lifetime of the Air Force as an institution, many issues of 1948 are still valid 50 years later. The overarching pressure of the Cold War served to stimulate some areas of US defense thought and stifle others. One the eve of the first Quadrennial Review, it is useful to see the events of the Key West Agreement and other reviews as both a warning and a guide. Particularly relevant reviews to place the roles and missions discussion in context are the February 1993 hearings before the House Armed Services Committee, the SECDEF's September 1993 Bottom Up Review, and the 24 May 1995 Report of the Commission on Roles and Missions of the Armed Forces. The reviews contain the evolutionary path leading to the current quadrennial review and place the roles and missions debate into context.

The Key West Agreement

The US Armed Services at the end of WW II were clearly the dominant military in the world at the time, and were facing the need to downsize and demobilize. The US industry also faced considerable challenges as it had to shift from its wartime footing to peacetime production. The National Security Act of 1947 created the Air Force and the Office of the Secretary of Defense. It is within this environment that debates surrounding the roles of the armed services began and grew in volume until the first SECDEF was compelled to have the services meet at Key West to resolve the differences. Of the outcomes at Key West, the Air Force gained its desired role as the grand-strategic strike forces of Strategic Air Command, and land based airpower. The Navy retained control over its strategic and tactical aviation, but also gained the new mission of providing mobile airfield from which to launch bombers with nuclear weapons from around the rim of the Soviet Union.[1] Another aspect of the agreement was that the Air Force received primary responsibility for air defense over land, and to a certain extent, validation of its independence.[2] Since then a number of events give the impression that the Key West Agreement did not solve the intended problem. Key West was basically a compromise that did not form the basis for integration.[3] It did reduce friction, although inter-service infighting flared up again in 1949 with the "Revolt of the Admirals". The fundamental result of the agreement was that each service got what it wanted, and redundancy and overlap were built into the foundation of the system.[4] It is at this point critics could begin to see the "four air forces, and two armies" that are decried today. Another problem with the Key West agreements comes about because of technological advances. The agreements then, understandably so, were silent on Space. Today one

could also say, there are four space forces: the Navy's, the Army's, the Navy's, and the National systems. Mentioned earlier, the Revolt of the Admirals centered on the competition between the Navy and Air Force on the Air Force's acquisition of the B-36, with barely a year gone by since the Key West agreement. This incident serves to underscore the divisions between the services, and the tension that could break out. Such degrees of competition continue to exist, especially in the areas of deep attack, and the theater missile defense programs. Subsequent executive and legislative actions changed the organization of the Joint Staff and Services so the environment within which review occurred evolved. The Cold War inhibited much more that marginal changes to roles and missions and little thought was given to how to optimize the US forces for lesser military actions.[5] Events in Korea and Vietnam illustrate some of the issues the services came across as they used forces structured for the anticipated large war with the Soviet Union. The disintegration of the USSR propelled thinking on force structures to the forefront of all the services with the first major actions occurring immediately after the War with Iraq.

Roles And Missions Brief To Congress

As required by the Gold-Waters act, LtGen Edwin Leland JCS-J5, testified before the House Armed Services Committee as on the Role, Missions and Functions of the Armed Forces in February of 1993. This represented the first major testimony during the new Clinton administration to the new democratic chairman, Hon. Dellums. The much anticipated testimony was to reflect the new geo-political realities, policies, and strategies since the end of the Cold war, and defeat of Iraq. Both Rep Dellums and Skelton in their opening remarks indicated dissatisfaction with the report, how it contained "too much

status quo", and were "not pleased with how far it went".[6] This hearing lay the foundation for the issues discussed in the upcoming Bottom Up Review, and the Roles and Missions Report to come after that.

General Leland presented the Roles, Functions, and Missions terminology still in use today. The services have specific functions, and the CINCs perform all missions. The hearings reflected much of the Key West redundancy with the testimony that:

- America has one Air Force—The US Air Force
- Other Services have aviation arms essential to their warfighting roles
- Each Air Arm provides unique but complementary capabilities
- All work Jointly to project air power[7]

General Powell had said this report was not a consensus report and the JCS revealed a fissure between the Army and Air Force concerning the Theater Air Defense issue. This issue was to be studied. Another point of criticism was whether or not the US had considered our allies. The SECDEFs Bottom Up Review (BUR), was just beginning at this time, as was the base realignment and closure process, but the BUR would provide the next chance to look at roles and missions, with a proposed force structure.

Bottom Up Review

SECDEF Aspin initiated the BUR of March 93 and it came out that September. The Air Force had just completed a Major Aircraft Review prior to that because of concerns over affordability of the B-2, F-22, and Navy Aviation programs. In the BUR, military service analysts were faced with the problem of trying to justify a force structure, without a threat to drive it. A reduced force structure would mean the loss of units, acquisition programs, and capability. Eventually the BUR settled on a two simultaneous major regional conflict scenario. Initially OSD leaked the desire to base force structure on a

win-hold-win scenario, with forces swinging from one region, but opposition form the services and Congress was significant.[8] Key assumptions in the BUR centered on an armor heavy threat and eschewed allied help. The BUR contained considerable residual thought from the Bush administration and the Cold war. Critics who were still looking for a change in US force structure (and considerable savings—the "peace dividend") noted the force outlayed were unaffordable, maintained US capability over the near term at the expense of the future, and did not consider the effects of the emerging revolution in military affairs.[9] The BUR had a lasting effect on military planning, primarily through the strategic assumption of the need to win two major regional contingencies.

Roles And Missions Report 25 May 95

Directions for Defense, Report of the Commission on Roles and Missions of the Armed Forces resulted from the National Defense Authorization Act of 1994. The report specifically stated that readers would not find a series of "put and take" statements that rearrange U.S. forces from one service to another. The commission would not have had such authority as it could really only make recommendations. This particular report made quite an impact as the Department of Defense did accept and support many of the recommendations. The committee on roles and missions rejected the argument that they would tell the services "who gets to do what", and tried to approach the issue from "who needs what."[10] Having done that, some key recommendations were that there needed to be creation of a joint vision, initiation of a deep attack weapons study, and a quadrennial strategy review. The committee observed that some portions of the Office of the

Secretary of Defense have become proponents for their functional areas. If true, such a situation would provide even more bureaucratic inertia against reform.

Critics of the report were quick to note the CORM failed to adequately address some of the issues central to the restructuring debate. Issues identified were the "crazy quilt" of service core competencies, and ignored contributions from alliances.[11]

Joint Vision 2010

The Joint Staff is aggressively pursuing development of the Joint Vision, and Joint doctrine. Joint Vision 2010 (JV 2010) lays down the conceptual framework for the Services to each develop their unique capabilities for the future.[12] JV 2010 lays out four new operational concepts that will allow US forces to achieve massed effects in warfare with dispersed forces. The concepts are: dominant maneuver, precision engagement, full dimensional protection, and focused logistics.[13] Each Service has a contribution to each of the new operational concepts. Lawmakers may have wished the creation of a Joint Vision would automatically imply some sorting out of roles and missions, but JV 2010 does not specify "which service does what". JV 2010 does imply a smaller deployed force, requiring less support, but it gives equal time to all the Services with nice glossy photos of each of the Services' premier programs. Each of the services has taken the new operational concepts and relooked at core competencies for the future.

AF Response, Core Competencies

After considerable thought and study, whose origins go back to the *Global—Reach Global Power* white paper, the Air Force has six core competencies for its focus as a

service. The competencies reflect advances in technology, maturation of ideas, expertise and varying political reality. The six core competencies are:

- Air and Space Superiority
- Global attack
- Rapid global mobility
- Precision engagement
- Information superiority
- Agile combat support

These concepts tie back directly to JV 2010 and focus on what airpower brings to the joint warfare.[14] It is in this manner the Air Force has said it "will do" some things other services have also laid claim, or has a great interest. Specific examples are conflicts with the Army and Navy over precision attack, conflict with the Army over offensive counter space, and conflict with the Marines over expeditionary forces. In a resource rich environment such conflicts rarely spill into the open however the current era of declining budgets there is a possibility that external actors may bring the debate into the public eye. The Air Force in conjunction with the Joint Staff has worked a vision for future warfare. This vision has not done away with the "four air forces and two armies" critics decry. The vision has sharpened the Air Force's arguments for what it will provide warfighters in the future and owes its heritage to the National Security Strategy.

Notes

[1] John E Jessys, Editor in Chief, *Encyclopedia of the American Military*, (New York, NY.: Scribners, 1994), 39-40.

[2] Barry M. Blechman, et al, *The American Military in the Twenty First Century*, (New York, NY.: St Martin's Press, 1993),11.

[3] Ibid., 3.

[4] Barry M. Blechman, ed., *Key West Revisited: Roles and Missions of the US Armed Forces in the Twenty First Century*, (Washington DC.: Henry L Stimson Center, 1993),1.

[5] Blechman, et al, *The American Military in the Twenty First Century, xvii.*

Notes

[6] House Committee on Armed Services, *Roles, Missions, and Functions of the Armed Forces of the United States: Hearings before the Committee on Armed Services, 103rd Cong, 1st Session,1993,3,6.*

[7] Ibid,23.

[8] Andrew F. Krepinevich, *The Bottom-Up Review: An Assessment.* (Washington DC: Defense Budget Project, Feb 1994),7

[9] Ibid.

[10] *Directions for Defense,* Report of the Commission on Roles and Missions of the Armed Forces, (John P. White, Chairman. Arlington, VA, 1995), 2-26.

[11] Andrewe F. Krepinevich Jr., *Missed Opportunities: An Assessment of the Roles & Missions Commission Report* (Washington DC: Defense Budget Project, 1995),5,31,33.

[12] *Joint Vision 2010,* (Chairman of the Joint Chiefs of Staff, 5126 Joint Staff, Pentagon, Washington, D.C. 20318-5126),1.

[13] Ibid., 25.

[14] *Air Force Executive Guidance,* (Air Force Strategy Division, HQ USAF/XOXS, Washington D.C.:Department of the Air Force, October 1996 Update), 8.

Chapter 3

Our Nation's Policy

> *The debate exploded at one session when Madeleine Albright, our ambassador to the UN, asked me in frustration: "What's the point in having this superb military that you're always talking about if we can't use it?*
>
> —General Colin Powell

Any discussion on service roles and missions must be firmly grounded in the nation's policy. For nearly five decades following the end of WWII, the nation followed a policy of containment concerning the spread of communist ideology. The collapse of the Soviet Union, and the end of the cold war inspired a new policy.

Engagement And Enlargement

Just prior to the end of the cold war, other independent activities by the congress, notably the Goldwaters Nicholas act of 1986, resulted in the publication of a document which explicitly states the nation's policy. The current document "A National Security Strategy of Engagement and Enlargement", published by the White House in 1996 provides clear direction for the post cold war era. The three central goals are:

1. To enhance our security with military forces that are ready to fight and with effective representation abroad.
2. To bolster America's economic revitalization.
3. To promote democracy abroad.[1]

These three goals are to be accomplished by the strategy of "engagement and enlargement". In a marked change from the past, containment died with the Soviet Union and the U.S. is now basing its national security strategy on two fundamental assumptions.

Beneath the fabric of "engagement and enlargement" are the assumptions that the U.S. military will size itself to fight and win two major regional contingencies, and perform other missions. This first assumption is specifically stated in the strategy. Another implicit assumption is that the world of the future will be better for the U.S. if all nations are democratic and have market economies. The strategy recognizes the threat from transnational problems, such as international organized crime, terrorism, drug trafficking, and environmental degradation. The U.S. military will have varying degrees of participation and three basic categories of national interests merit the use of U.S. forces. They are:

1. Vital Interests—The defense of U.S. territory, citizens, allies, and our economic well-being. The U.S. will act unilaterally and do whatever it takes to defend these interests.
2. Important, but not vital interests—Selective limited use of force when other means have failed, Bosnia and Haiti are recent examples.
3. Humanitarian Intervention—Military used when scale of catastrophe dwarfs the ability of civilian agencies to respond.[2]

The National Strategy states a critical list of questions to consider before committing military force in every case.

- Have we considered nonmilitary means that offer a reasonable chance of success?
- Is there a clearly defined, achievable mission?
- What is the environment of risk we are entering?
- What is needed to achieve our goals?
- What are the potential cost—both human and financial—of the engagement?
- Do we have a reasonable likelihood of support from the American people and their elected representatives?
- Do we have timelines and milestones that will reveal the extent of success or failure, and in either case, do we have an exit strategy?[3]

The national strategy necessarily considers more than just the military element of America's national power. The mention of ecological degradation or drug trafficking in the document as a threats to national security does not imply or require a military response, however, depending on the category of interest threatened, and answers to the above questions, there may be a role for the U.S. military.

Flexible and Selective Engagement

The companion document to the National Security Strategy is published by the Joint Staff and represents the military response. General Shalikashvili outlines a strategy and calls it "A Strategy of Flexible and Selective Engagement." Its is derived from the goals of engagement and enlargement, and the Bottom-Up review and states:

> The fundamental purpose of the Armed Forces must remain to fight and win our Nation's wars whenever and wherever called upon. With worldwide interests and challenges, the United States must maintain its capability to deal with more that one major crisis at a time. For this reason, our Armed Forces must maintain the capability to fight and win two nearly simultaneous regional contingencies, even as we continue to restructure and reduce the size of the force.[4]

Broadly speaking the national military objectives are to promote stability and thwart aggression. Three loose sets of tasks, peacetime engagement, deterrence and conflict prevention, and fighting and winning our Nation's wars, frame the components of the strategy.[5]

In a large sense both documents taken together form the focus for U.S. armed forces and state what they may be called to do. It is a key point to note the expectation is for the U.S. to maintain a global capability. Given the Joint Staff's strategy, it is then up to the services to define their roles. The Air Force lay the initial foundation for the post cold

war time with the publication of a white paper that lay the first course in the new thinking to come.

Global Reach—Global Power

Air Force Secretary Donald Rice published the white paper, Global Reach —Global Power, in June of 1990. This watershed paper recognized the new world without the threat of the Soviet Union. The ideas laid down in '90 are remarkably durable in the time of transition and the Chief of Staff of the Air Force only recently refined them in a capstone document detailing Global Engagement: A Vision for the 21st Century Air Force. Where previous policy statements paid only a cursory amount of attention to the value of space superiority the Air Force now explicitly states it has the role as a service to provide Space Superiority. Within this role are Counter Space, Offensive Counter Space, Defensive Counter Space, and National Missile Defense.[6] The need to control the high ground and maintain a theater wide perspective are fundamental to the Air Force and this line of thought traces all the way back to the vision of early airmen. It is in this manner, the Air Force proposes to support the National security strategy. At the highest level, the strategic level, when deterrence isn't enough to prevent aggression, the operational consideration becomes how to win the nation's wars. The next chapter proposes that just as our strategy has changed, a new opportunity is available to transition from a ground-force-centric strategy, to a strategy more dependent on unique aspects of airpower.

Notes

[1] *A National Security of Engagement and Enlargement* (The White House, Washington, DC: Government Printing Office, 1996), i.

[2] Ibid., 18.

[3] Ibid., 18-19.

[4] *National Military Strategy of the United States of America, A Strategy of Flexible and Selective Engagement* (The Joint Staff, Washington DC: Government Printing Office,1995),ii.

[5] Ibid,1.

[6] *Air Force Executive Guidance*, (Air Force Strategy Division, HQ USAF/XOXS, Washington D.C.:Department of the Air Force, October 1996 Update), 11,12.

Chapter 4

The Revolution In Military Affairs

> *While the meteoric rise of the Mongols was due to their mastery of military and political strategy, the secret of their power was the deadly accuracy of their mounted archers, who could strike terror into the ranks of their enemies by shooting the leaders at distances of from two or three hundred yards.*
>
> —Gordon T. Bowles

This chapter proposes we are in the midst of a Revolution in Military Affairs (RMA); however, the revolution cannot be completed until the military seizes the correct strategy and organization to realize the tremendous success a RMA can bring. Following a definition of terms, the chapter outlines the elements of a RMA and shows how strategy and doctrine are the unifying elements to complete the equation in the future wars we will face.

The Revolution In Military Affairs Defined

A cynic would say the discussion on RMA is just a faddish "within the belt way" discussion that only serves sycophantic contractors and "wanna be" strategists. Such a cynic would also be dismissing fundamental military study and allowing an unfortunate world view to distort objective thought. An RMA is a fundamental change or discontinuity in the way military strategy and operations have been planned and

conducted.[1] Such a definition points out the discontinuous nature of a RMA and implies great advantage to one party of a conflict who exploits the RMA when another doesn't. Such asymmetry would result in great victory. If both parties were to recognize the RMA and innovate simultaneously, the RMA would be less obvious as a Cannae like victory and might manifest itself as an increase in casualties, for each side, for example. The next definition of a RMA goes a step further and makes the RMA contingent on three elements. A RMA is a major change in warfare brought about by the innovative application of new technologies which, combined with dramatic changes in military doctrine and operation and organizational concepts, fundamentally alters the character and conduct of military operations.[2] A number of notable examples of RMAs stand out throughout history. The development of the stirrup, long bows, gunpowder, and repeating rifles all come out as technologies that coupled with new doctrine and organizational structures resulted in an RMA. There is considerable reason to believe there was a RMA in 1660 or so, although historians may quibble a few years either way. This RMA concerned itself with the elements necessary for what we would consider modern warfare: mass armies, strict discipline, the control of the state, submergence of the individual, financial power, and applied science.[3] The next RMA concerns itself with the advent of airpower in 1918. A key tell tale sign as to whether or not 1918 is the demarcation of an RMA is the observation that a General of 1871, as a Napoleonic example, would not recognize a post 1918 battlefield. As an interesting discussion to determine when a RMA occurs, consider the analogy in the natural sciences where a rate of change of a population is proportional to the amount of that population present. Given the following assumptions, we can perform an investigation as to the possible underlying factors, that is

the general advancement of technology and society. Plotting the logarithm of time between RMAs on the vertical axis quickly shows such assumptions imply RMAs are occurring at an exponential rate. The Table below shows the data and their manipulation.

Table1. RMA Data

RMA YEAR	Years Since RMA	ln(Years Since)
500 BCE		
1660	2000	7.6
1918	354	5.8
1992	78	4.3

Applying the figures to a visual representation clearly demonstrates the linear relationship between the logarithms of the years since the most recent RMA. This relationship is in the next figure.

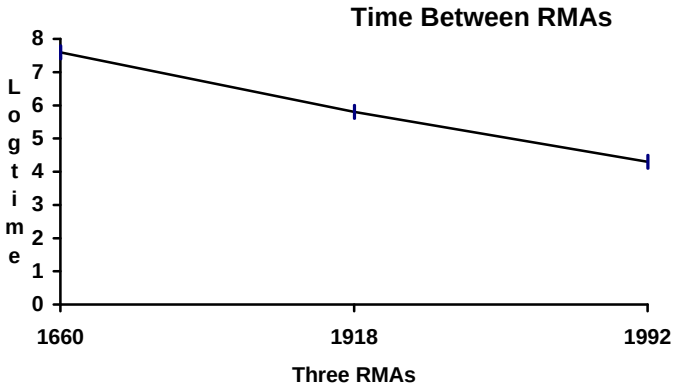

Figure 1. Time Between RMAs

This figure is appealing as it implies there is the possibility of an underlying process governing the occurrences of RMAs and adds an intuitive flavor in favor deciding that it is indeed time for an RMA, given what may be reasonably assumed. The latest RMA

concerns the use of Air Power and the Gulf War is the catalyst that greatly accelerated discussion on its implications.

Whether or not the Gulf War represented a RMA is vigorously debated whenever Air Force officers discuss the issue. The authors of the *Gulf War Air Power Summary Report* directly address the issue in their conclusion. They conclude it is too soon to tell.[4] This cautious approach recognizes the difficulty in recognizing RMAs and a reluctance to over generalize from one experience. The approach that it may take decades to determine if we have reached an RMA has a basis in military study.[5] The RMA we are in probably began in Europe between 1914-1918 and the new weapon was air power. Every mission performed from the air, or now proposed from space, occurred during that period and enabled warfighters to attack a whole new set of targets.[6] This new set of targets was denied to Generals of the Napoleonic era and new doctrines and structures quickly sprang so enemy sources of strength, military and economic, could be attacked.[7] Col. John Warden summarizes these new targets in his system model as leadership, system essentials, infrastructure, population, and fielded military.[8] Our experience from the Gulf War shows us the relative importance of each of these "rings" and the promise of technology to better prosecute the critical ones.

Enemy Leadership As A Target Set

Warfighters have always wanted to "kill the bayonet". This simple statement means Napoleonic Generals looked for the decisive battle to destroy the other's army. Then, with the advent of early air power, we could kill the bayonet before it got to the battle, and then we could kill it in the factory. The new target we have available is the enemy

leadership. The debate then turns to what happens when the leadership is killed? If there is no need for leadership, then nothing would happen. But, if leadership is required to direct forces, maintain coalitions, or maintains a police state, then destruction of leadership at the very least would greatly facilitate other military operations and reduce resources necessary to achieve goals. Each enemy will have different leadership requirements; a democracy with popular support for the war (such as the US in World War II) would probably continue, however, an authoritarian regime may be extremely sensitive to loss of the ruling elite. It is easy to postulate the beneficial effects of killing the leadership of the Central Powers in World War I or the Nazi elite in World War II. These benefits were so attractive that both the 9th Air Force and 2nd TAF made leadership attacks, and many were successful.

Leadership Attacks In WWII

Examination of air attack on leadership reveals the attacks allow themselves to be conveniently grouped into three general classes. Strategic, tactical, and targets of opportunity attacks serve as a force multiplier. The delineation between strategic and tactical results from the existence of an immediate effect on an engagement. If there is an immediate effect on an ongoing offensive, such as the destruction of a division's headquarters, then the attack would be tactical. Examples of strategic leadership attacks are those whose effects would be delayed or theater wide. On 19 March 1945 P-47s of the 9th Air Force 367th FG attacked the German Headquarters at Ziegenburg, GE. This attack left the center for all operations on the western front in ruins and struck a demoralizing blow to the German High Command. [9] Air Forces also destroyed the headquarters for German forces in Sicily at Taormina. This attack resulted from the

application of last minute intelligence and resulted in direct hits on the objective.[10] The 2nd TAF had similar success in attacking strategic targets with their Mosquito's. Because of their wood construction the Mosquito's were difficult to detect with the radar of the time, and their speed provided an advantage while escaping intercept from enemy aircraft. These aircraft attacked a rest home for U-boat crews and killed 400 sailors.[11] Loss of highly skilled sailors (or airmen) would have an enduring effect on German operations. The final examples of strategic attacks were those on the Gestapo headquarters, SS barracks, saboteur training facilities, and prisons. In general, these attacks were successful. One spectacular attack occurred on 24 Oct. 44 when, based on reports from the Dutch resistance, units of the 2nd TAF attacked a conference of officers in a park in Dordrecht. Two German general officers died along with 17 high ranking officers and 55 others of the German 15th Army. A preplanned reattack narrowly missed attacking the funeral, but was weathered out, showing an imaginative opportunity for another strategic attack.[12]

Tactical attacks on leadership had immediate effects. The 9th's 405th FG attack on the 17th SS Panzer Grenadier Division disorganized operations for a length of time.[13] General Dawans, Chief of Staff for Panzer Group West died in an attack by 2nd TAF Typhoons. The 2nd TAF also killed LtGen Dohlman, commander of the German Division facing the Americans at St. Lo, when they attacked and destroyed his headquarters.[14]

The final method of attack on leadership occurs when pilots attack targets of opportunity. This form of attack is not well focused, but it does take advantage of fleeting opportunities such as when on 17 July 1944, Spitfires strafed a staff car

containing General Fieldmarshall Erwin Rommel, fracturing his skull. During the Normandy invasion and following operations, the outcome was not certain. Allied air superiority was so complete that German fighting and troops and headquarters alike were forced to seek cover.[15] The attack on Rommel is crucial because it is one of the cases where enemy records provide insight on effectiveness after hostilities. The attack on Rommel on 17 July rendered him hors de combat at a critical time in the battle. His daily diary went for 7 days without an entry, and the entry on the 24th of July 1944, was dictated to his aide de camp. In it he wrote to his wife:

> My left eye is still closed and swollen, but the doctors say it will get better. My head is giving me alot of trouble at night, though I feel very much better in the day time..."[16]

For all intents, Rommel was finished after that attack and did not contribute greatly to the action. His injuries prevented him from exercising his considerable leadership skills.

Leadership Attack In The Gulf War

W.W. II represents a larger set of material for attacks on enemy leadership than the Korean and Vietnam conflicts. Histories of the latter two conflicts are relatively quiet on the results of such attacks, although there was a successful attack in Korea, when on 30 Oct '51 approximately 500 North Korean officers were killed in such a raid at Kapson.[17] For various reasons such attacks may not have been recorded, or prosecuted. In contrast, the Gulf War dedicated a portion of the air campaign to leadership attack.

From the beginning of planning the offensive war, Phase I, was a progressive and systematic collapse of Saddam Hussein's regime and ability to conduct war. These initial attacks went against two basic sets of targets: leadership and communications. Typical

leadership targets were: presidential residences and palace, presidential and VIP bunkers, national command and control bunkers, government ministries, Ba'ath party headquarters, secret police headquarters. Command Control and Communications targets were: radio relays, telephone exchanges, TV/radio stations, fiber optic repeating stations, ground force command posts, satellite receiving stations, barracks.[18] These attacks had both military and political dimensions with the intent to separate the Iraqi national leadership from the people and military. The plan sought to prevent propaganda, mobilization, neutralize Iraqi government, and induce a coup or revolt.[19]

Attacking the Iraqi military leadership was an objective and Saddam Hussein was targeted with that in mind. Saddam's death was not a necessity; however, aircraft attacked targets associated with him from the beginning to the end. They bombed residences and the Bluebird Wanderlodge.[20] Saddam's death was never an objective; planners were aware of the high risk of failure, and the difficulties of tracking down Noriega in operation Just Cause. Given this massive attack, it is natural to measure its effectiveness.

The regime's ability to function was not paralyzed or broken by the time the coalition's ground offensive began. The attacks had probably taken away the enemy ability to conduct any large scale or complex operation but quantitative measures are unavailable, and without access to high level Iraqi officials, qualitative measures can only be guessed.[21] What is clear, is that the coalition had air supremacy, and any ground operations would benefit greatly. There were realities in execution that merit consideration for future campaigns.

As intense as the first night was, it was not an all attack on the leadership. A strategic attack's success appears to come quickly, or not at all, as the enemy often uses ingenious and "heroic" methods to overcome its effects as time continues.[22] The unintended destruction of civilians in the Al Firdros bunker effectively terminated the attacks in the Baghdad area. This coupled with the shift to bunker busting took away sorties designated for the leadership and communications targets. The leadership attacks did have an effect however unquantifiable; Saddam had to sleep in private residences and travel very carefully (we suspect he was very nearly killed), his ability to control and direct his forces was degraded, as was that of his commanders. There were rebellions in both the north and south of Iraq at the end of the war. The Gulf War shows the clear value of quick air supremacy, and offers possibilities for more effective attacks on enemy leadership.

Feasibility For Increased Effectiveness Of Leadership Attacks

There are new technologies available to target and destroy leadership, which is a smaller target set, and control the vexing weapons for which we cannot guarantee destruction.

Weapons such as precision guided munitions, coupled with 24 hour a day surveillance systems as the Predator and DarkStar UAVs, and ELINT, COMINT, and HUMINT sensors give us the capability to track and target enemy leadership responsible for both political and military control. These weapon systems finally allow the Air Forces to remain on station 24 hours a day, survive during the mission, and use a variety of sensors to continuously provide surveillance over a target, be it mobile or fixed. The Air Force is currently working on sensor to shooter procedures to destroy SCUD transporter

erector launchers less that five minutes after launch. This effort suits itself to other time critical targets. This evolutionary capability hides its revolutionary promise in that the technology is available today and is operational in some cases. Such surveillance technology now makes it possible to prepare for conflict by targeting, and tracking the individuals comprising a nation's top leadership for both offensive and defensive reasons. Once neutralized, the enemy will be unable to effectively continue an offensive, mount a cohesive defense, or counter attack with weapons of mass destruction. No nation allows such weapons of mass destruction to be employed or controlled by any one other than top leadership. The problems with destruction of the actual weapons are insurmountable, as well is the task of preventing such weapons to come into the possession of an enemy.[23] With the creation of this leadership target set, its prosecution with a time critical capability enables an effective attack. In the past, governments could attempt such attacks by teams of assassins, however, such attacks would not hamper the leadership's ability to control forces and did not cause military to lose cohesion. In the past, limited attacks on individuals were ineffective, but now we have the capability to simultaneously attack the entire target set. The US military has the capability to mount an extremely high operations tempo, 24 hours a day, in all types of weather and this capability is the key to success. The Air Force has always attempted to hit many of the targets we attacked in the Gulf War, but how we attacked them is now different. This concept of parallel war is critical and recognized by observers well removed from the "beltway". Brigadier VK Nair, of the Indian Armed Forces noted that the "relentless war by day and night ... in itself imbalanced Iraqi combat cohesion to a great degree and precluded timely and meaningful reactions."[24] This concept of relentless attacks on focused on enemy

leadership by day and night is one that coupled with a new organizational structure will complete the RMA. In his book, *Future War*, Colonel Jeffrey Barnett outlines some near term actions for the Joint staff to pursue. [25] One of these is to build a concepts development center. It is precisely in such a center that the US military should experiment and fully utilize the capabilities of today's modern modeling and simulation capabilities. The Joint Warfare Center at Ft. Monroe, VA immediately comes to mind. It is in such a venue that senior leaders can actually fight such a war with representative models of weapons systems *in real time.* The current hierarchical command and control system would only need a little modification to allow commanders to routinely make sweeping changes to exploit enemy failures in as little as 30 minutes. This capability would compress the OODA loop cycle considerably and make new demands on the linkages between commanders and the components. What sort of changes would a commander be making? In the Gulf War, the war's short duration and Iraqi failure to maneuver precluded any effects of the bombing of POL from manifesting themselves.[26] In such a case, after initial attacks on the enemy's system, dissemination of the centrally produced air tasking order would quickly allow the Joint Forces Air Component Commander to create and execute a play list similar to a football coach. In that way the JFACC would essentially be playing option football on a theater wide scale, attacking various targets in the time phased manner most devastating to the enemy. In this example, sorties devoted to POL storage areas would be used on other targets (like the distribution system) until it became apparent the enemy would maneuver. Such reactions to opportunities for exploitation or unexpected events (creation of unexpected coalitions for example), can only be achieved with practice and knowledge a priori that such theater

wide shifts in objectives are expected and planned. An example of a planned breakpoint would be after a decapitating attack, the CINC would ask the enemy if they wished to surrender to the US terms, and continue or halt the air assault, before the Army has engaged on the ground. If the destruction of the enemy forces is the goal, the decapitating attack would occur with the difference being we would not allow the enemy to surrender until a certain percentage of enemy forces are destroyed. Future exercises (Roving Sands, Ulchi Focus Lens etc.) must take advantage of the new organization and planning capabilities. Agility from the CINC, to the aircrews and munitions handlers, must be exercised fully to determine how quickly can we change and decrease the time it takes to distribute and attack time critical targets.

Arguments For And Against Leadership As A Target Set

There exist a number of arguments against targeting leadership. These arguments are loosely grouped into those centered on Presidential Directives, legal, moral, and strategic concerns. These concerns entered into the Gulf War to some extent. Perhaps the greatest discussion came about with the Presidential Directive proscribing assassination.

Prohibition Against Assassination

Executive Order 12333 - US Intelligence Activities, Part 2. Paragraph 2.11 reads:

> No person employed by or acting on behalf of the United States Government shall engage in, or conspire to engage in assassination."[27]

EO12333 came out of Senate hearings on Central Intelligence Agency attempts to assassinate Castro of Cuba and Lumumba of the Congo (now Zaire). To use EO 12333 as justification against attacking enemy leadership is to misinterpret the EO and expand it

beyond its original context and intent. To say attacking a nation's leadership in a military operation is assassination is a misinterpretation of accepted international law.[28]

Legal

Whether or not something (or someone) is a valid military target is the key to whether or not is can be legitimately attacked. A valid military target is one that makes an effective contribution to military action.[29] International law allows for attacks on a head of state if he is a valid military target and the attack is not done with perfidy. An example of perfidy would be a "dead or alive" clause which would essentially prevent a rational person from surrendering as a condition for peace. Legal objections are often confused with the moral objections.

Moral

Moral objections are the hardest to define. In an absolute sense any moral objection to targeting, hence accepting the possibility of killing, a leader of the enemy would be specious. Such an objection would be to give the targeted leadership a special immunity not accorded to an 18 year old drafted into the infantry. In terms of accountability for the causes of a war, a nation's leadership has more to do with the origins of war than the infantry soldier. If a leader does not wish to be killed in such an attack, all the leader need to do is to surrender and then receive the protections allowed by international law. War and morality discussions often evoke contradiction's and inverted moral situations. One could easily make the case that it would be *immoral* to kill 10000 soldiers, when 100 sorties and 100 casualties in more senior circles would achieve the same goal, with considerably less destruction. Moral considerations in war and sensibilities over methods

change. Hugo Grotius in the 1600's taught that it was legal to kill prisoners of war and assassination was legitimate, if not accompanied by perfidy.[30] Legal and moral considerations aside, there are operational reasons put forth to discourage leadership targeting as well.

Strategic

Depending on the leadership, their removal through incapacitation or death may accelerate or hinder war termination. World Wars I and II offer examples for consideration. In World War I, the Kaiser had to abdicate for Germany to surrender. W.W. II has the case of Nazi Germany's leader fighting to the "last man", but also resisting an internal revolt that may have sought an early peace before total defeat and occupation. In the case of Japan, it was the Emperor who called for surrender, as the military leaders were preparing for the final defense. Strategic thinkers considered what might have happened if Saddam had been killed and there was considerable speculation if his successor "would be even worse" or if he would then be recast as a martyr. This is something to consider, but Saddam did not have popular support and experience with changes in governments, especially totalitarian ones, show it is unlikely to have consecutive bad actors.[31]

Targeting and neutralizing enemy leadership give policy makers extremely flexible options. Every group, from the most primitive guerrilla outfit, to the most modern army requires leadership. Such an attack must be tailored to the strategic situation. For example, if there were a large enemy land force, US forces may need considerable ground forces to prevent the enemy from lashing out and causing considerable destruction while our attacks on its leadership are taking hold. In such a case considerable airpower would

be used to blunt and then destroy any maneuvering forces, allowing the ground units to operate with all the advantages that come with air superiority. Regardless of the situation, the option of an attack on leadership by it self, or in conjunction with another campaign is now viable and has potential to be a tremendous force multiplier. By going directly after leadership, the US will force accountability for the regime's policies and get into the mental processes of the decision makers. As in a game of chess, steady pressure on the opponent's king forces him to move and enables friendly development—leading to checkmate.

This chapter began with a definition of a revolution in military affairs that required a confluence of technology, doctrine, and organizational concepts to achieve a discontinuous change in conduct of warfare. Technology has been evolving since 1914 with the introduction of Air Power. This evolution has steadily improved targeting capabilities, and the ability to target and then strike the enemy's leadership target set. Air Force doctrine recognizes the value of attacking enemy leadership, and the recent Gulf War provides a laboratory to evaluate the effects of high tempo operations against the highest levels of leadership. The JFACC organization and current command and control structures provide a spring board for 24 hour a day attacks against leadership that are part of a larger parallel war exploiting the flexibility of Air Power. It is recognition of these three factors combining to produce a product greater than the sum of the parts that can result in the next RMA.

Notes

[1] Barry Schneider and Lawrence Grinter, eds., *Battlefield of the Future, 21st Century Warfare Issues* (Maxwell Air Force Base, AL.:Air University Press, 1995),43.

[2] Ibid., 65.

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[3]Clifford J. Rogers ed., *The Military Revolution Debate,* (Boulder CO.:Westivew Press,1995),29.

[4] Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Summary Report* (Washington, DC: Government Printing Office, 1993), 251.

[5]Ibid., 251.

[6]Captain Cyril Falls ed., *Military operations Macedonia, From the Spring of 1917 to the End of the War*,(London: His Majesty's Stationary Office, 1923),294-296,301,303.

[7] War Department Field Manual FM 100-20, *Command and Employment of Air Power*, (Washington DC: Government Printing Office, 1924), 6.

[8] Barry Schneider and Lawrence Grinter, eds., *Battlefield of the Future, 21st Century Warfare Issues* (Maxwell Air Force Base, AL.:Air University Press, 1995), 108.

[9] Kenneth C. Rust, "*The 9th Air Force in World War II*" (Fallbrook CA.: Aero Publishers,1970),157

[10] Ibid., 34.

[11] Christopher F. Shores, *2nd TAF,* (Osprey Publications, Berks.:,1970),213.

[12] Ibid., 26,70.

[13] Rust, 126.

[14] Shores, 56,57.

[15] B. H. Liddel Hart, *The Rommel Papers*, (trans. by Paul Findley, New York, NY.: Harcourt Brace and Company, 1953),477.

[16] Ibid,493.

[17] Bruce A. Ross, *The Case for Targeting Leadership in War*, (Naval War College, Newport RI.: 13 Feb 1992), 22

[18] Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Vol. II, Effects and Effectiveness* (Washington, DC: Government Printing Office, 1993), 271.

[19] *Gulf War Air Power Summary Report*, 44-45.

[20] Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Vol. I, Operations* (Washington, DC: Government Printing Office, 1993), 24.

[21] Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Vol. II, Effects and Effectiveness*,288,343.

[22] Ibid,345.

[23] David A. Kay, "Denial and Deception Practices of WMD Proliferators: Iraq and Beyond," *The Washington Quarterly* 18:1, Winter 1995 pp 85-105.

[24] Brig VK Nair, *War in the Gulf, Lessons for the Third World* (Gulmohar Park, New Delhi: Lancer International, 1991),95.

[25] Colonel Jeffery R. Barnett, *Future War, An Assessment of Aerospace Campaigns in 2010* (Maxwell Air Force Base, Ala.: Air University Press, January 1996), 107

[26]*Gulf War Air Power Summary Report*, 118.

[27]*Codification of Presidential Proclamations and Executive Orders, Office of Federal Register National Archives and Records Administration, April 13, 1945 - January 20, 1982.* (Washington DC.: US Gov. Printing Office), 647.

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[28] Bruce A. Ross, *The Case for Targeting Leadership in War,* (Newport RI.: Naval War College, 13 Feb 1992), 12; and Roger G Herbert, Jr. *Bullets with Names: The Deadly Dilemma* (Naval Postgraduate School Thesis, Monterey CA, June 1992.)

[29] *Gulf War Air Power Survey Vol. II, Effects and Effectiveness,* p276 makes this point and quotes Air Force Pamphlet 110-31 *International Law—The Conduct of Armed Conflict and Air Operations* 1976, Chapter 5.

[30]*The Military Revolution Debate*, 28.

[31] Ross, 14.

Chapter 5

Conclusion

> *Technology has driven each military era's definition of precision. In the 21st century, it will be possible to find, fix or track and target anything that moves on the surface of the earth. This emerging reality will change the conduct of warfare and the role of air and space power. As Air Force members, we have a responsibility to understand, develop and advocate new ways that air and space power can serve the nation and the Joint Force Commander.*
>
> —Global Engagement: A Vision for the 21st Century Air Force

This paper began with the premise that the nation's armed forces are undergoing changes in the way they will fight wars of the future and that doctrine has a fundamental impact. The early airpower thinkers had a vision of operations, free from the temporal and spatial tyranny of terrestrial earth, creating decisive advantages in war. It is Air Force doctrine, linked to the most deep-seated qualities of air and space forces that motivates the Air Force to seek certain roles and missions. These capabilities, based on lessons learned with tens of thousands of lives, are durable. In essence, the Air Force beginning was a vision of a better way to achieve victory in war. Had man been always able to fly, roles between the services could be considerably different today, but because airpower is relatively new, a certain evolution of thought had to occur to take advantage of the new capability airpower brought to the warfighter.

Roles, missions and functions arguments between the services are long standing and present the appearance of unnecessary duplication of capabilities. These discussions, in one form or the other, go all the way back to the origins of the Army and the Navy in the case of the Marines. It is only natural that aviation capabilities in each service prompt similar questions concerning the Air Force. Technology also blurs the issue as there are often several ways to attack a given target, and capabilities overlap. These questions, and limited resources gave rise to a series of agreements and studies over "who should be doing what." At the same time, the United States underwent a discontinuous change in national policy with the collapse of the Soviet Union.

With the Cold War over, the President developed the national security strategy of Engagement and Enlargement—engage with the world and promote market democracies. In the meantime, unprecedented advances in technology, encourage military leaders to consider new operational concepts to support the new national strategy. There is direct tractability from the national security strategy of *Engagement and Enlargement*, through the national military strategy of *Flexible and Selective Engagement*, to the Air Force strategy of *Global Reach—Global Power*. *Global Reach—Global Power* is evolving into Global Engagement and represents the impact of doctrine, technology, and policy. This new vision points towards a distilled capability that takes advantage of technology to achieve our nation's goals, in the manner consistent with American values.

The ability to attack an enemy nation's leadership presents opportunities for the military, and leans heavily on capabilities the Air Force brings to warfighters. The Air Force does not execute this capability alone, but it is a change from an armor centric to an air centric perspective. Doctrine has a tremendous impact on service roles and the

warfighters' missions, it is up to each service to see that the capabilities provided enable the warfighter to achieve the nation's policies, in the manner consistent with the nation's goals

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